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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,588	12/05/2003	Teruo Ishishita	10517/201	7318
23838	7590	07/07/2006	EXAMINER	
KENYON & KENYON LLP 1500 K STREET N.W. SUITE 700 WASHINGTON, DC 20005			NGUYEN, TUNG X	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/727,588

Applicant(s)

ISHISHITA ET AL.

Examiner

Tung X. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3, 6-8,10,13 and 14 is/are allowed.
- 6) ☒ Claim(s) 4 and 11 is/are rejected.
- 7) ☒ Claim(s) 5 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkubo et al. (u.s.p 6,621,250); in view of Oba et al. (JP405199605A).

As to claims 4, 11, Ohkubo et al. disclose in Fig. 1, an apparatus for calculating an offset value for a current sensor of a magnetic flux detection type comprising: a determining device (80e of figure 1) for determining whether calculation of offset value (fully-charged state, col. 3, lines 1-5) is permitted based on a current value (display on 40 of figure 1) detected by the current sensor (40 of figure 1); the determining device for determining the calculation of the offset value is permitted when the current value detected by the current sensor is switched from charging to discharging current value.

Ohkubo et al. Still disclose in Fig. 1, a calculating device (80c of figure 1), which calculates the current value, detected by the current sensor (40 of figure 1) as the offset value (fully-charged state, col. 3, lines 1-5) when calculation of the offset value is permitted by the determining device (col. 3, lines 5-10).

Ohkubo et al also disclose the determining device makes a determination such that calculation of the offset value is permitted when the current value detected by the current sensor (fully-charged state, col. 3, lines 1-5, and 20-30), and when a state

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where an absolute value of the current value is within a predetermined range is continued for a predetermined time (col. 3, lines 1-5, and 20-30).

Ohkubo does not teach the limitations of "the current sensor switched from a negative value to a positive value" during determining the calculation of the offset value. However, Oba et al. disclose the current sensor has a negative value considered being discharge state, and positive value consider being charge state. Therefore, Oba et al teach the limitations of the current sensor switched for a negative value to a positive value (see the abstract). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the present invention to recognize that the current sensor switched from the discharge state to charge state the same meaning with the current sensor switched from the negative value to the positive value, as also well-known in the existing battery capacity measuring technology.

***Allowable Subject Matter***

3. Claims 5, 12, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 1, 3, 6-7, 8, 10, 13-14, the prior art does not teach or suggest the predetermined range is based on the characteristics of a core of the current sensor; in combination with the other claimed features.

As to claims 5,12, the prior art does not teach or suggest the predetermined range is changed according to a change in a temperature of the current sensor. In combination with the other claimed features.

***Response to Arguments***

5. Applicant's arguments of RCE with respect to claims 4-5, and 11-12, have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

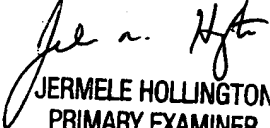
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Nguyen whose telephone number is (571) 272-1967. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha T. Nguyen can be reached on (571) 272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN  
6/24/06

  
JERMELE HOLLINGTON  
PRIMARY EXAMINER  
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06/26/06